IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An electrochemical cell comprising:

a first electrode;

a second electrode;

a curable liquid electrolyte disposed between the first and second electrodes, wherein the curable liquid electrolyte comprises:

a protonic polymer having ~~an~~ a polymeric backbone with side chains containing acidic groups for conducting protons in an electrochemical cell;

a first vinyl monomer comprising a –COOH- group; and

a cross linking agent comprising a second vinyl monomer.

2. (Currently Amended) The electrochemical cell of claim 1, wherein the acidic groups of the protonic polymer comprises sulfonic acid, carboxylic acid, phosphoric acid groups or combinations thereof.

3. (Original) The electrochemical cell of claim 1, wherein the first vinyl monomer is a vinyl phosphoric acid.

4. (Original) The electrochemical cell of claim 1 wherein the second vinyl monomer comprises di-vinyl sulphone.

5. (Original) The electrochemical cell of claim 1, wherein the curable liquid electrolyte further comprises a solvent.

6. (Original) The electrochemical cell of claim 5, wherein the solvent is selected from the group consisting of water, di-methyl acetamide, and combinations thereof.

7. (Original) The electrochemical cell of claim 1, wherein the curable liquid electrolyte further comprises a photo-initiator.

8. (Original) The electrochemical cell of claim 1, wherein the protonic polymer is sulphonated polyether ether ketone.

9. (Original) The electrochemical cell of claim 1, wherein the curable liquid electrolyte further comprises an elasticizing agent.

10. (Currently Amended) The electrochemical cell of claim 9, wherein the elasticizing agent is ~~acrylonitirle~~ acrylonitrile.

11. (Original) The electrochemical cell of claim 1, further comprising: a first spacer connected to the first electrode and the second electrode; and a second spacer connected to the first electrode and the second electrode, wherein the curable liquid electrolyte is disposed between the first and second spacers.

12. (Original) The electrochemical cell of claim 1, further comprising: a spacer having an injection port disposed between the first electrode and second electrode forming a cavity wherein the curable liquid electrolyte is disposed in the cavity.

13. (Currently Amended) The electrochemical cell of claim 1, further comprising:

a porous substrate;

at least one channel disposed in the porous substrate having a first channel wall and second channel wall; and

wherein the first electrode is disposed in the first channel wall and the second electrode is disposed in the second channel wall, and the curable liquid electrolyte is disposed in the channel.

14. (Currently Amended) The electrochemical cell of claim ~~1~~ 13, wherein the substrate is a porous media.

15. (Currently Amended) The electrochemical cell of claim ~~1~~ 13, wherein the substrate comprises a carbon filled epoxy, a carbon filled polymer, a magnelli phase titanium oxide or combinations thereof.

16. (Original) The electrochemical cell of claim 13, wherein the substrate comprises a foam, a monolith of porous material, an aero gel, a mat, a felt, paper, mesh, laminates thereof, composites thereof or combinations thereof.

17. (Original) The electrochemical cell of claim 13, further comprising:

a base comprising at least one distribution plenum for transporting curable liquid electrolyte;

at least one fluid port in fluid communication with the channel; and

at least one master port for receiving curable liquid electrolyte into the base.

18. (Original) The electrochemical cell of claim 17, further comprising a cap disposed over the first electrode to seal the electrode.

19-28. (Withdrawn)

29. (New) The electrochemical cell of claim 1, wherein the curable liquid electrolyte is cured to form a membrane electrolyte.

30. (New) An electrochemical cell comprising:

a first electrode;

a second electrode;

a membrane electrolyte disposed between the first and second electrodes, the

membrane electrolyte formed by curing a liquid within the electrochemical cell, the liquid comprising:

a protonic polymer having an polymeric backbone with side chains containing acidic groups for conducting protons in an electrochemical cell;

a first vinyl monomer comprising a -COOH- group; and

a cross linking agent comprising a second vinyl monomer.